Sugar Showdown: Science Responds to "Fructophobia"

The scientific community lashed out against "sugar is toxic" sensationalism, identifying it as a distraction from more meaningful areas of research and debate on the causes of obesity and disease.

In a highly attended debate at Experimental Biology 2012 in San Diego sponsored by the Corn Refiners Association, scientists expressed clear frustration about the repeated assaults on sugar both in recent news reports and in the scientific literature.

"You don't often see this at a meeting," said John White, Ph.D., of White Technical Research, to me after the event, referring to what he said was "the groundswell of researchers pushing back" against inflammatory remarks and overstatements.

The symposium organized by the American Society for Nutrition showcased both sides of the controversy surrounding the metabolic effects and health implications of sugar—fructose, sucrose, and high-fructose corn syrup—using latest available and emerging scientific findings.

As the first presenter, White presented data from the National Health and Nutrition Examination Surveys showing that no correlation existed between total fructose and the prevalence of obesity and that total added sugars and intake of sugar-sweetened beverages have declined for more than a decade.

"The support for fructose as a metabolic threat at current levels of intake is weak," White affirmed.

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White also made the point that high-fructose corn syrup and sucrose are not different, suggesting the former might’ve been more appropriately called "medium-fructose corn syrup" because of its similarity to table sugar and other sugars.

Presenting a contrasting view, George Bray, M.D., chief of the Division of Clinical Obesity and Metabolism at the Louisiana State University Pennington Biomedical Research Center, showed data that soft drink consumption had increased from 1950 to 2000. Sugar-sweetened beverages, he argued, provide add-on calories that lead to weight gain, particularly from intra-abdominal fat.

In what promised to be a highly charged attack on sugar, characteristic of his appearance in media reports, Robert Lustig, M.D., began with a title slide displaying: "Fructose: alcohol without the 'buzz'". He argued that fructose metabolism was similar to that of ethanol’s and that a "beer belly" was not far off from a "soda belly."

In his limited time, fast-talking Dr. Lustig quickly explained metabolic pathways and repeated remarks that fructose may be addicting to the brain like ethanol, based on animal research, and that fructose may be several times more likely than glucose to form advanced-glycation end products (a hallmark feature of uncontrolled diabetes).

Next to speak was cardiologist James Rippe, M.D., who presented a convincing argument that while fructose alone may have "qualitative differences," they were not "quantitative differences." He argued that research comparing pure fructose to pure glucose was not relevant to human nutrition.

Sharing White’s viewpoint, Dr. Rippe added that there were no metabolic differences between the sugars or fructose by itself—that is, there are no clinically meaningful effects on blood lipids at levels consumed by people normally, and no effects on uric acid or blood pressure.

He said the hot topic was an emotional issue creating a "perfect storm" for mistaken identity.

Dr. Rippe said afterward that Dr. Lustig’s logic about fructose being uniquely responsible for disease

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was like going into "an alternate universe" that just did not stand up to scientific scrutiny. Yet it garnered attention because of the public's habit of playing "the blame game" mixed with misconceptions about high-fructose corn syrup.

"People called him on it today," Rippe told me. By going to the media directly, he said, Dr. Lustig didn't have to have the same standards of proof that scientists usually must have.

The last presenter was David Klurfeld, Ph.D., of the United States Department of Agriculture, who rounded out the debate again affirming that there was no evidence suggesting that sugar presented a unique metabolic danger.

"Is there a metabolic difference between sugars? Of course," Klurfeld said, "Is it biologically meaningful?" The answer was that it wasn't, according to the available evidence.

"The dose makes the poison," Klurfeld added. Should there be sugar regulation or taxation? There is insufficient data to justify any decision, Klurfeld said, quipping that whole milk would be next.

A question-and-answer period followed the debate giving a voice to disgruntled attendees who called Dr. Lustig out for suggesting that sugar was a metabolic danger. Dr. Lustig agreed that "everything can be toxic" at a dose, but sugar is abused and addictive.

One commenter (later identified as Richard Black, Ph.D., of Kraft Foods) responded saying that media should stop comparing sugar to cocaine by showing images where the brain lights up in the same areas. "The brain is supposed to light up in response to food," he said.

In an amusing but perhaps humbling moment for Dr. Lustig, he singled out the commenter asking if he had children. The commenter responded that he did. Dr. Lustig then asked him if as infants his children more easily liked sweet foods. The commenter said that, yes, of course they did because breast milk was sweet. Dr. Lustig replied that it was not. His reply caused an immediate reaction (notably, from mostly women) in the room who voiced in unison, "Yes, it is!"

John Sievenpiper, M.D., of St. Michael's Hospital told me after the event he was pleased that the speakers framed their arguments in a way that put the controversy in perspective. As shown in recent meta-analyses of which he co-authored, fructose demonstrated no significant effect on body weight or blood pressure in calorie-controlled trials. Fructose also demonstrated improvement of glycemic control at levels comparable to that obtained in fruit.

"It's hard to change people's minds," Dr. Sievenpiper said, stating concern that people would reduce intake of fruit in response to fears about the metabolic effects of fructose.

The vegetables in salads are chock-full of important vitamins and nutrients, but you won’t get much benefit without the right type and amount of salad dressing, a Purdue University study shows (1).

In a human trial, researchers fed subjects salads topped off with saturated, monounsaturated and polyunsaturated fat-based dressings and tested their blood for absorption of fat-soluble carotenoids – compounds such as lutein, lycopene, beta-carotene and zeaxanthin. Those carotenoids are associated with reduced risk of several chronic and degenerative diseases such as cancer, cardiovascular disease and macular degeneration.

The study, published online in the journal *Molecular Nutrition & Food Research*, found that monounsaturated fat-rich dressings required the least amount of fat to get the most carotenoid absorption, while saturated fat and polyunsaturated fat dressings required higher amounts of fat to get the same benefit.

"If you want to utilize more from your fruits and vegetables, you have to pair them correctly with fat-based dressings," said Mario Ferruzzi, the study’s lead author and a Purdue associate professor of food science. "If you have a salad with a fat-free dressing, there is a reduction in calories, but you lose some of the benefits of the vegetables."

In the test, 29 people were fed salads dressed with butter as a saturated fat, canola oil as a monounsaturated fat and corn oil as a polyunsaturated fat. Each salad was served with 3 grams, 8 grams or 20 grams of fat from dressing.

The soybean oil rich in polyunsaturated fat was the most dependent on dose. The more fat on the salad, the more carotenoids the subjects absorbed. The saturated fat butter was also dose-dependent, but to a lesser extent.

Monounsaturated fat-rich dressings, such as canola and olive oil-based dressings, promoted the equivalent carotenoid absorption at 3 grams of fat as it did 20 grams, suggesting that this lipid source may be a good choice for those craving lower fat options but still wanting to optimize absorption of health-promoting carotenoids from fresh vegetables.

"Even at the lower fat level, you can absorb a significant amount of carotenoids with monounsaturated fat-rich canola oil," Ferruzzi said. "Overall, pairing with fat matters. You can absorb significant amounts of carotenoids with saturated or polyunsaturated fats at low levels, but you would see more carotenoid absorption as you increase the amounts of those fats on a salad."

The findings build on a 2004 Iowa State University study that determined carotenoids were more bioavailable – absorbed by the intestines – when paired with full-fat dressing as opposed to low-fat or fat-free versions. Ferruzzi; Wayne Campbell, a

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Is There A ‘Healthy’ Obesity Gene?

Why is it that some obese people are healthier than others? This was one of the main questions Dr. Chaodong Wu of the College of Agriculture and Life Sciences — Texas A&M University System — and a group of researchers tried to answer in a recent study (1).

Wu noted that Xin Guo, a Ph.D. candidate in the college’s department of nutrition and food sciences, contributed significantly to the study.

“Previous research had indicated that a regulatory enzyme which is encoded by the gene PFKFB3 protects against diet-induced fat tissue inflammation and systemic insulin resistance,” said Wu. “Increasing evidence shows that fat deposition, or amount, is not directly associated with the inflammation or insulin resistance in the development of obesity-related metabolic diseases.”

Wu said the inducible 6-phosphorofructo-2-kinase (iPFK2) enzyme links metabolic and inflammatory responses and may underlie what he refers to as “healthy” obesity. “While many obese people develop Type 2 diabetes, heart conditions and other chronic health problems associated with being significantly overweight, other obese people do not,” he said. “And while obesity in general is not healthy, some obese people do not develop the diseases more commonly associated with a less-than-healthy diet. Furthermore, a number of thinner people may have the sort of health problems more typically associated with obesity.”

Wu said he and the other researchers theorized that these diseases are associated with the cellular inflammatory response brought on by obesity. “We also thought this gene could conceivably

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Purdue professor of nutrition science; Shellen Goltz, a Purdue graduate student in food science; and their collaborators, Chureeporn Chitchumroonchokchai and Mark L. Failla at Ohio State University, are the first to study different types of fats in differing amounts in human subjects.

Ferruzzi and colleagues will next work on understanding how meal patterning affects nutrient absorption. He is trying to determine whether people absorb more nutrients if they eat vegetables at one time or if consumption is spread throughout the day.

Reference:


be targeted for use in the treatment of diabetes, especially Type 2, commonly associated with obesity,” he said. “We wanted to find out what might happen to a subject if that particular gene was activated.”

Wu and his fellow researchers used laboratory mice to explore the effect of a targeted adipocyte overexpression of the gene/enzyme combination on diet-induced inflammatory responses and insulin sensitivity.

“We were trying to find out what it is in adipose, or fat, tissue that may trigger a negative response that leads to disease — and how to modulate that response,” he said. “In our study, we learned overexpression of the iPFK2 enzyme increases fat deposition, suppresses inflammatory responses and improves insulin sensitivity in both adipose and live tissues.”

As an extension of this research, Wu said, it may be possible to identify a pharmacological agent or bioactive agent which may have the desired effect on this gene toward reducing obesity-related cellular inflammatory response.

“We’re hoping that, as one of its outcomes, this research will help lead to finding bioactive compounds or some type of supplement that might be taken to help activate this gene toward the promotion of health,” he said. “It would also be a good idea to compare and contrast this research with studies done on what constitutes a healthy diet and the effect of such a diet at a cellular level.”

Wu said that would allow for screening bioactive compounds in a healthy diet to determine to what degree these might be applicable for the treatment of disease brought on by unhealthy obesity in an animal model.

“As a further extension, one might study different types of obese people and try to isolate additional specific genes that determine a healthy versus an unhealthy obesity and find a way to modulate the expression of those genes toward disease prevention and health promotion,” he said. “Once you find the link between the gene and the obese status of the individual, then you could work with experts in chemical research to produce or replicate whatever pharmacological or bioactive compound is needed to treat unhealthy obesity.”

Wu said it is important to determine positively to what degree obesity as a health problem is due to a person’s genetic makeup as it relates to their ability to store fat, as well as what type of fat — saturated or non-saturated — the individual may store.

“Fat composition is more important than fat deposition, or content,” he said. “We know fat cells secrete some of their own bioactive compounds that we may be able to isolate and identify for use in promoting health.”

Wu said it will be necessary to discover the role of certain genes in the composition and deposition of fats beyond what has already been identified as being stored in the adipose tissue of mice.

“Then we may be able to produce a dietary supplement or other bioactive compound that would have a positive health effect,” he said. “This could be used as a targeted treatment for obesity-related diseases such as Type 2 diabetes in a way that would have limited or minimal side effects.”
Obesity (Continued from page 6)

References:


Source: Paul Schattenberg, Texas A&M Agrilife Today; May 31, 2012; http://today.agrilife.org/2012/05/31/healthy-obesity-research/.

Begin Early: Researchers Say Water With Meals May Encourage Wiser Choices

Water could change the way we eat.

That’s the conclusion of new research by T. Bettina Cornwell of the University of Oregon and Anna R. McAlister of Michigan State University (1). Their findings appear online in the journal Appetite.

The paper featured separate studies. One involved a survey of 60 young U.S. adults (ages 19-23) about the role of food-and-drink pairings. The second involved experiments with 75 U.S. children (ages 3-5) to determine the role of drinks and vegetable consumption. The same preschoolers were tested on different days under differing scenarios involving drinks served with vegetables.

Older participants favored the combination of soda served with salty, calorie-dense foods rather than soda and vegetables. Preschoolers ate more raw vegetables, either carrots or red peppers, when accompanied with water rather than when accompanied by a sweetened beverage.

"Our taste preferences are heavily influenced by repeated exposure to particular foods and drinks," said Cornwell, the Edwin E. & June Woldt Cone Professor of Marketing in the Lundquist College of Business at the UO. "This begins early through exposure to meals served at home and by meal combinations offered by many restaurants. Our simple recommendation is to serve water with all meals. Restaurants easily could use water as their default drink in kids' meal combos and charge extra for other drink alternatives."

Serving water, McAlister said, could be a simple and effective dietary change to help address the nation’s growing obesity problem, which has seen increasing number of diabetes cases in young adults and a rise in health-care costs in general. Drinking water with meals, Cornwell said, also would reduce dehydration. While estimates of dehydration vary by sources, many estimates suggest that 75 percent of adult Americans are chronically dehydrated.

From an early age, Cornwell said, children learn to associate sweet, high-calorie drinks such as colas with salty and fatty high-calorie-
Water (Continued from page 7)

containing foods like French fries.

"While this combining seems as normal as rainfall in Northwest winters, when we look cross-culturally we can see that food-and-drink combinations are developed preferences," she said. "If the drink on the table sets the odds against both adults and children eating their vegetables, then perhaps it is time to change that drink, and replace it with water."

In January 2011, Cornwell and McAlister reported in the same journal that a child’s taste preferences for salt, sugar and fat are related to their knowledge of fast food and soda brands (2).

Reference:


Breast-Fed Babies' Gut Microbes Contribute To Healthy Immune Systems

A new multi-university study reports that differences in bacterial colonization of the infant gut in formula-fed and breast-fed babies lead to changes in the expression of genes involved in the infant’s immune system (1).

The study, published in BioMed Central’s open access journal Genome Biology, is an Editor’s Pick. The research was a joint effort of University of Illinois, Texas A&M University, Miami University, and University of Arkansas scientists.

"This study provides a first insight into the interactions between microbes and the developing infant and how these interactions are affected by diet. It also demonstrates the power of new experimental and analytical approaches that enable the simultaneous analysis of the microbiome and the host response," said Mihai Pop of the University of

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Maryland in a review of the study for the publishing journal.

There is strong evidence that the colonization of the body by microbes has an important influence on the development of infants’ immune systems, he added.

In the study, the researchers compared the genes expressed in cells from the intestines of three-month-old exclusively breast-fed or formula-fed infants and related this to their gut microbes. The human intestine is lined by epithelial cells that process nutrients and provide the first line of defense against food antigens and pathogens. Approximately one-sixth of the intestinal epithelial cells are shed every day into feces, providing a non-invasive picture of what is going on inside the gut.

The baby’s gene expression profile was compared to the genes contained in the microbes in its gut, or the bacterial metagenome. This analysis provides a picture of who the bacteria are and what they are doing.

The study showed that babies that had been fed only breast milk had a more diverse bacterial colonization than formula-fed babies. The scientists also found a link between the expression of genes in the bacteria and genes of the immune system in the baby.

"While we found that the microbiome of breast-fed infants is significantly enriched in genes associated with 'virulence,' including resistance to antibiotics and toxic compounds, we also found a correlation between bacterial pathogenicity and the expression of host genes associated with immune and defense mechanisms," said Robert Chapkin of Texas A&M University.

Iddo Friedberg of Miami University in Ohio said that the differences in virulence genes probably do not reflect an infection. "The breast-fed babies had a larger complement of gram-negative bacteria than the formula-fed babies. Gram-negative bacteria have genes that, although classified as 'virulent,' can activate the immune system but not cause an infection in the process. We are now studying this finding in greater depth," he said.

"The findings show that human milk feeding promotes the beneficial microbe population in the gut and crosstalk between these bacteria and the immune system of the infant and are helping us to define exactly why breast is best," said U of I scientist Sharon Donovan.

Reference:
1. Pop M. We are what we eat: how the diet of infants affects their gut microbiome. Genome Biol. Apr. 30, 2012; 13(4):152. [Epub ahead of print]

Folic Acid Intake During Early Pregnancy Associated With Reduced Risk Of Autism In Offspring

A new study by researchers at the UC Davis MIND Institute suggests that women who consume the recommended daily dosage of folic acid, the synthetic form of folate or vitamin B-9, during the first month of pregnancy may have a reduced risk of having a child with autism (1).

The study furthers the researchers' earlier investigations, which found that women who take prenatal vitamins around the time of conception have a reduced risk of having a child with autism. The current study sought to determine whether the folic acid consumed in those supplements was the source of the protective effect. The finding suggests that, in addition to women who already have conceived, those who are attempting to become pregnant should consider consuming folic acid supplements, the authors said.

The study found that women who each day consumed the recommended amount of folic acid (600 micrograms, or .6 milligrams) during the first month of pregnancy experienced a reduced risk of having a child with autism spectrum disorder, specifically when the mother and/or her child had a specific genetic variant (MTHFR 677 C>T) associated with less efficient folate metabolism. The study is published in the American Journal of Clinical Nutrition.

“[This research is congruent with the findings of earlier studies that suggest that improved neurodevelopmental outcomes are associated with folic acid intake in early pregnancy],” said lead study author Rebecca J. Schmidt, assistant professor of public health sciences in the UC Davis School of Medicine and a researcher with the UC Davis MIND Institute. “It further supports recommendations that women with any chance of becoming pregnant should consider consuming folic acid at levels of 600 micrograms or greater per day.”

Autism is a neurodevelopmental disorder characterized by impairments in social interaction, communication deficits and repetitive behaviors and often is accompanied by intellectual disability. An estimated 1 in 88 children born today will be diagnosed with autism spectrum disorder, according to the U.S. Centers for Disease Control and Prevention.

“What’s reassuring here is knowing that, by taking specific action in terms of their intake of folic acid from food or supplements, women can reduce the risk of autism spectrum disorder in their future children,” said study senior author Irva Hertz-Picciotto, chief of the division of environmental and occupational health in the Department of Public Health Sciences and a MIND Institute researcher.

The study authors said that folic acid might offer protection against problems in embryonic brain development by facilitating DNA methylation reactions that can lead to changes in the way that the genetic code is read. An ample supply of methyl donors such as folic acid could be especially

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important in the period around conception, when the DNA methylation road map is set forth.

For the study, the researchers collected data from approximately 835 Northern California mothers of 2- to 5-year-old children who had autism, developmental delay or typical development and who were participants in the Childhood Autism Risk from Genetics and the Environment (CHARGE) study between 2003 and 2009.

Each mother’s average daily folic acid intake was assessed on the basis of the amount and the frequency of consumption of folic acid-containing dietary supplements such as prenatal vitamins and multivitamins, as well as the consumption of food supplemented with folic acid such as fortified breakfast cereals or energy bars. Information was collected for the period when the women were pregnant and for the three months before they became pregnant.

The study found that mothers of typically developing children reported greater-than-average intake of folic acid, and were more likely to meet intake recommendations during the first month of pregnancy than were mothers of children with autism spectrum disorder. Among study participants, as the amount of folic acid consumed increased, the associated risk for autism spectrum disorder decreased. Mothers of children with developmental delay tended to have lower estimated folic acid intake when compared with mothers of typically developing children during the three months before pregnancy.

The mothers of infants who were developing normally said they consumed an estimated average of 779 micrograms of folic acid daily and 69 percent of them at least met the daily guidelines. The mothers of children with autism consumed an estimated average of 655 micrograms of folic acid. Fifty-four percent of them consumed the recommended 600 micrograms or more per day.

Consuming supplemental folic acid before and during early pregnancy has been recommended for decades, after studies demonstrated its potential to prevent up to 70 percent of neural tube defects, or improper formation of the embryonic brain and spinal cord. Folic acid's protective effect on neural tube defects also was stronger when mothers and/or children carried the MTHFR 677 C>T gene variant. Early maternal folic acid supplementation has more recently been shown to improve other social, attention and behavioral outcomes in the developing child.

Reference:


In a tight economy, with fewer jobs, many people end up working harder and sacrificing more to stay employed. A new study finds that one of those sacrifices is sometimes their own and their family’s nutrition (1).

While prior studies have implicated working mothers in providing less healthy family food environments, this is one of the first studies of family nutrition to look at fathers — in particular a population of urban fathers, who face higher rates of unemployment and underemployment. According to lead author Katherine Bauer, an assistant professor of public health and researcher at Temple’s Center for Obesity Research and Education, the study is also one of the first to look at work/family conflict for both parents and to focus on families of adolescents.

Of the 3,709 parents of adolescents surveyed by the researchers — many of whom were from a racial or ethnic minority group and lower income — only 64 percent of fathers and 46 percent of mothers were employed full-time.

Mothers employed full-time “reported fewer family meals, more frequent fast food meals, while fathers employed full-time spent less time preparing meals compared to part-time and not working fathers.”

Bauer noted that over time these differences can add up to have a big impact on parents’ and children’s health. She’s careful to note, however, that the burden of this problem not fall solely on mothers, and instead be approached holistically by the whole family, the community and society.

“Our work underlined the need to take into account the competing pressures that so many families — especially those that are lower income — are experiencing,” said Bauer. “There’s a great need to help parents find realistic and sustainable ways to feed their families more healthfully while taking into consideration all of the stresses on parents these days.”

“Parents’ Work-Life Stress Hinders Healthy Eating For Family

Parents’ Work-Life Stress Hinders Healthy Eating For Family

Full time employment by mothers was associated with fewer family meals, and more frequent fast food meals, while fathers employed full-time spent less time preparing meals compared to part-time and not working fathers.

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Low-Fiber Diet Puts Adolescents At Higher Risk Of Cardiovascular Disease

Adolescents who don’t eat enough fiber tend to have bigger bellies and higher levels of inflammatory factors in their blood, both major risk factors for cardiovascular disease and diabetes, researchers report (1).

The study of 559 adolescents age 14-18 from Augusta, Ga., showed they consumed on average about one-third of the daily recommended amount of fiber, said Dr. Norman Pollock, bone biologist at the Medical College of Georgia and the Institute of Public and Preventive Health at Georgia Health Sciences University.

“The simple message is adolescents need to eat more fruits, vegetables and whole grains,” Pollock said. “We need to push recommendations to increase fiber intake.” He and Dr. Samip Parikh, an internal medicine resident at GHS Health System, are co-first authors of the study in the Journal of Clinical Endocrinology and Metabolism. Only about 1 percent of the young participants consumed the recommended daily intake of 28 grams for females and 38 grams for males. The study appears the first to correlate dietary fiber intake with inflammatory markers in adolescents.

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Better understanding the relationships and risks of diet, inactivity and obesity in children and adolescents is particularly critical at a time when about 1 in 3 is overweight or obese, Parikh said. That's nearly triple the rate since 1963, according to the American Heart Association.

Low-fiber consumers in the study were more likely to have more of the visceral fat found in and around major organs in their abdominal cavity. They also tended to have higher levels of inflammatory factors, such as immune cells called cytokines, as well as lower levels of protective adiponectin, a protein secreted by fat that helps the body use glucose and fight inflammation. Interestingly, adiponectin levels tend to drop when fat becomes excessive and obesity is generally considered a chronic inflammatory state.

Exactly how fiber helps stave off some of these unhealthy consequences is not completely clear, Parikh said. Hypotheses include increased bulk in the stool causing digested food to spend less time in the gastrointestinal tract and the ability of fiber to improve insulin sensitivity, potentially reducing visceral adiposity. More indirectly, fiber tends to speed satiety, potentially decreasing total food and caloric consumption, Parikh said. It may also help absorb and eliminate inflammatory factors.

While belly fat and high inflammatory factors are inexorably linked to bad consequences such as heart disease and often occur together, one did not directly cause the other in this instance, Pollock noted. He was co-first author earlier this year of a study on the same group of adolescents that showed high-fructose consumption correlated with higher blood pressure, fasting glucose, insulin resistance and inflammatory factors as well as lower levels of cardiovascular protectors such as HDL cholesterol and adiponectin (2). These dangerous associations were exacerbated by belly fat. “There is some other mechanism (for increased inflammatory factors associated with low-fiber intake),” Pollock noted.

The scientists acknowledge getting adolescents to eat more fiber can be tough, not only because of their penchant for processed foods but because side effects can include intestinal gas, bloating and diarrhea. The scientists acknowledge getting adolescents to eat more fiber can be tough, not only because of their penchant for processed foods but because side effects can include intestinal gas, bloating and diarrhea. They are pursuing funding to develop more palatable forms of fiber that could be sprinkled, for example, on the low-fiber foods most adolescents regularly consume.

Study participants were part of a larger study assessing the relationship between activity and diet. The scientists noted that low-fiber intake also was linked to higher levels of overall body fat but only in females. A high-fiber diet seemed to reduce general body fat in males.

Reference:

Source: Georgia Health Sciences University News and Information; June 1, 2012; http://news.georgiahealth.edu/archives/5728
Great Recession Reflux Amounts To More Hunger Among Seniors

A new study that looked at the hunger trends over a 10-year period found that 14.85 percent of seniors in the United States, more than one in seven, face the threat of hunger. This translates into 8.3 million seniors (1).

"In 2005, we reported that one in nine seniors faced the threat of hunger," said Craig Gundersen, University of Illinois associate professor of agricultural and consumer economics and executive director of the National Soybean Research Laboratory who led the data analysis on the study. "So, unlike the population as a whole, food insecurity among those 60 and older actually increased between 2009 and 2010."

According to the study, from 2001 to 2010, the number of seniors experiencing the threat of hunger has increased by 78 percent. Since the onset of the recession in 2007 to 2010, the number of seniors experiencing the threat of hunger has increased by 34 percent.

Gundersen said that the fact that seniors in our country are going without enough food due to economic constraints is a serious problem that will have greater implications for senior health.

"Compounding the problem is that food insecurity is also associated with a host of poor health outcomes for seniors such as reduced nutrient intakes and limitations in activities of daily living," Gundersen said. "Consequently, this recent increase in senior hunger will likely lead to additional nutritional and health challenges for our nation."

The increases in senior hunger were most pronounced among the near poor, whites, widows, non-metro residents, the retired, women, and among households with no grandchildren present.

"What may be surprising is that out of those seniors who face the threat of hunger, the majority have incomes above the poverty line and are white," Gundersen said.

Other key findings in the study are that those living in states in the South and Southwest, those who are racial or ethnic minorities, those with lower incomes, and those who are younger, ages 60 to 69, are most likely to be threatened by hunger.

This study is the first in a series of annual reports on the state of senior hunger in the United States. The report was based on data collected from the Current Population Survey, which includes 18 questions in the Core Food Security Module, the module used by the USDA to establish the official food insecurity rates of households in the United States.

Senior Hunger in America 2012: An Annual Report was co-authored by James P. Ziliak of the University of Kentucky Center for Poverty Research. It was prepared for the Meals on Wheels Research Foundation, Inc., and published in May 2012.

Reference:

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